

**Eastern Virginia Ground Water Management Area Regulation Amendments and
Ground Water Withdrawal Regulation Amendments
Regulatory Advisory Panel Meeting
Virginia Department of Fire Programs
1005 Technology Park Drive, Glen Allen, VA 23059
February 3, 2010 9:30 am**

RAP members present

David Bailey, The Environmental Law Group
Ron Harris, Newport News Waterworks, representing the Va. Section of the American Waterworks Association
Gayl Fowler representing SAIF Water Wells, Inc.
Christian Volk, Ph.D., Water Quality Manager, representing VA/MD-American Water
Thomas Roberts, Smurfit-Stone Container, representing Mission H₂O
Britt McMillan, Malcolm Pirnie, representing Eastern Shore of Virginia Ground Water Committee
Larry Foster representing Hampton Roads Planning District Commission
Susan Douglas, Va. Dept of Health
Curtis Consolvo, GeoResources, Inc.
Frank W Fletcher, PhD, PG, Retired professor
Bill Pennell, Lancaster County Administrator
George Harlow, U.S. Geological Survey
Steve Werner, (alternate for Jesse Royall, Sydnor Hydro)
Harry Critzer (alternate for Mike Neuhard, Deputy County Administrator, Stafford County)
P.J. Smith (alternate for Sheryl Raulston) representing VMA
Butch Nottingham-VDACS
Lynn Gayle, Taylor and Fulton, Inc. and member of the Va. Potato and Vegetable Grower's Association
John D. O'Dell, Water Well Solutions, LC

RAP Members not present

Sheryl Raulston, International Paper- Franklin Mill, representing VMA
Jesse Royall, Sydnor Hydro
Mike Neuhard, Deputy County Administrator, Stafford County
Lewis Lawrence- Middle Peninsula Planning District Commission

Public Attendees

Jeff Fletcher
Whitney Katchmark
Gina Shaw
Vernon Land
Mike Lang

DEQ Staff

Scott Kudlas

Robin Patton
Hank Ghittino
Melissa Porterfield
Robyne Bridgman
Previn Smith

Introductions and Administrative Issues

Melissa Porterfield welcomed everyone to the meeting and introductions were made. All individuals present were asked to sign in on the attendance sheet. Anyone interested in the activities of the GW RAP may sign up to be added to an e-mail distribution list to receive information about the GW RAP meetings. Individuals interested in participating in the public forum should contact Melissa Porterfield prior to noon. If no individuals sign up for the public form, the public forum will not be held.

The next meeting of the GW RAP had been scheduled for March 9th. Due to an agency conflict, the meeting will be rescheduled for Wednesday, March 10th. Larry Foster has arranged for the group to meet at the James City – Williamsburg Community Center. The agency believes that the March meeting will be the last meeting of the GW RAP.

Today the GW RAP will be reviewing draft language distributed to the group. The language distributed is for discussion purposes only and is not proposed regulatory language. The language has not been review by agency attorneys. A member inquired if they could submit additional comments on the draft language after the meeting. GW RAP members may e-mail comments concerning the draft language to Melissa Porterfield within 1 week of the meeting. Comments should be provided by Wednesday, February 4, 2010. Comments provided will be read but responses will not be provided to the comments.

Review of Draft language-Part III- Permit application and issuance

Melissa Porterfield explained that the draft regulations provided to the RAP for review have been reorganized. Section 90 previously contained multiple scenarios under which a permit application is made. Additional regulatory sections have been added to the regulations to separate the individual scenarios under which a permit application is made. This is being done to focus an applicant on the requirements that are applicable to their permit application.

In response to comments made at the last GW RAP meeting, the Water Conservation and Management section (section 100) has been re-organized to provide more details on the contents of the Water Conservation and Management Plan, based on how the applicant intends to utilize the ground water withdrawn.

The Ground Water Withdrawal regulations have not been revised in many years. The regulations were compared to other agency permit programs to make them more

consistent with other permit programs. One section that will be added to the regulations is a section that identifies reasons for denial of a permit.

A question was raised concerning the use of section numbers in the regulations and whether there were missing sections since the section numbers are not consecutive. There are standard requirements developed by the Virginia Registrar of Regulations concerning the development of regulatory language. The registrar recommends the use of a numbering sequence for sections by counting by tens when a regulation is first developed. That allows for the insertion of additional sections when the regulations are revised in the future. Section numbers not used are not part of the regulations. If a section is used once in the regulations, if it is repealed, that section number will not be used again in the future and will be listed as repealed.

The draft language provided to the GW RAP for review is only Part III of the regulations which focuses on permit applications. There are additional parts of the regulations that discuss issues such as definitions, modifications of permits, and special exceptions.

Section 85- Pre-application meeting

Pre-application meeting language was discussed and suggestions were made by members to clarify the language. The following changes were suggested and discussed by members.

Section §85A. suggested changes

Line 8- clarify that the owner or operator intending to apply

Line 11- proposed application and applicable regulatory requirements

Line 12- specify new public water supply (there was discussion that the term new might be too restrictive) VHD will not be attending all meetings, leaving the language as is retains this flexibility. A suggestion was made to re-word the section to remove redundant language concerning VDH, and to remove the requirement for the applicant to request VHD participation in the meeting. DEQ would notify VDH of the pre-meeting.

Line 19- A suggestion was made to revise the text to read “discuss information and regular submittals.” The group discussed the need for applicants that are reapplying for a permit to re-submit information that the agency already has in its files. A suggestion made to create a checklist for the pre-application meeting that would identify items that would not need to be re-submitted for those applications that are reapplications for a current permitted withdrawal. The pre-application meeting should include identification of those items that have changed and those parts of the previous application continue to be accurate.

A question was raised concerning whether a pre-application meeting would be required for historical withdrawals seeking their first permit. In the past when ground water management areas were expanded, pre-application meetings were not required. The current regulatory text does not require pre-application meetings to occur for historical withdrawers seeking their first permit.

Section 90

Section 90 addresses those withdrawals that were first regulated under the Ground Water Act of 1973. A suggestion was made to check the new title of section 90 to make sure that is consistent with the dates as described in state statute. (July 1, 1992- after, before or including)

The first item listed as required to be submitted for an application to be complete is a permit fee. A member referred to a bill that has been introduced in the General Assembly this year that increases the permit fees for these permits. The member was concerned that historical users that are receiving their first permit would be required to pay a fee that is the same fee as an application for a new permit. The agency responded that the ground water withdrawal regulations reference another set of regulations that outline the applicable fees for all water permits. If any changes are made to state statute concerning permit fees, the permit fee regulations, not the ground water withdrawal regulations, would need to be revised. Any changes to the permit fees are outside of the scope of the ground water withdrawal regulations and will not be discussed further at these meetings. The ground water withdrawal regulations will continue to reference that the requirements of the permit fee regulations are to be met.

* Draft language in Sections 90, 92, and 94 have similar requirements concerning well construction data and locations of wells (GPS data). The group discussed these topics at the meeting and the topics are summarized below.

Well construction data

Well construction data was discussed, specifically the information that would be need to issue a ground water withdrawal permit. The draft regulatory text presented to the GW RAP has been expanded to list specific information that needs to be submitted as part of the permit application in Section 90, 92 and 94. The group discussed the GW-2 form which is a Virginia Department of Health form that is referenced in the ground water withdrawal regulations and the completeness of these forms. There are inconsistencies in how the GW-2 forms have been completed in the past. Historically, the form was not completed in its entirety for wells, which limits the available information on the conditions of the well. Some members indicated that well driller education needs to be increased to obtain more complete GW-2 forms. DEQ staff will be talking to the well drillers concerning completion of well reports and the importance of the information at an upcoming well driller conference.

For historical wells, there was discussion concerning information that is needed in order to be able to evaluate a withdrawal and issue a permit. There were differing points of view by members of the group concerning how the regulations should address well construction data for existing wells. Some believe that minimum standards should be specified in the regulations to provide applicants with the minimum information that the agency will request the applicant to provide for historical wells. Others believe that the regulations need to simply specify that the GW-2 should be submitted and the agency

should on an individual basis discuss any information not included on the GW-2 form that needs to be obtained by the applicant. For historical wells, well construction information can be obtained through investigation of the wells through a camera survey. Information on the depth of the well, the diameter, top and bottom and material of each cased interval, top and bottom of each screened interval, and depth of pump intake can be obtained from camera survey. There was no consensus reached on what requirements should be included in the regulations concerning documentation of historical wells.

For newly installed wells, the proper completion of the GW-2 form should provide the agency with the information needed concerning the construction of the well. Not all information included on the GW-2 is needed for the evaluations of the GW withdrawal and the group discussed if a complete form was necessary. For instance, water temperature is information only needed by the health department when water treatment is necessary.

Identification of Locations of Wells

The group discussed the new language that requires the applicant to provide the latitude and longitude for locations of wells. Comments were made concerning the datum to be utilized for collection of data and the ability of the applicant to obtain accurate information. The agency informed the group that the agency would provide guidelines concerning the collection of the GPS data and that the agency needs the applicant to provide this information as part of the application. Accuracy of information provided by the applicant was discussed, and the agency expects the applicant should be capable of providing exact locations of wells when properly trained. The agency's goal is to reduce the number of application that it has to field locate with its own staff.

Section 92

Those areas that will become regulated as a result of the expansion of the ground water management area would become regulated under section 92 of the regulations.

The agency indicated that the proposed regulation, the language in section 90 and 92 concerning well construction data and GPS data language would be the same requirements.

Section 94

The agency indicated that the proposed regulation, the language in section 90, 92, and 94 concerning GPS data will be the same.

Concerning well construction requirements for new wells, consensus was reached on removing lines 32-39 from section 94 which specified specific well information to be provided to the agency, and the regulation would reference that a GW-2 form should be submitted. In the event information is not available, the agency would be able to use discretion on accepting an incomplete form.

A question was raised concerning the terms “pump test” and “aquifer tests” and the definitions of these terms. A member suggested the agency consider defining these terms in the regulations.

A general comment was made on the regulatory construction of sections 90, 92 and 94 to list the application requirements in the same order- specifically the signed application as the last part of the application.

Section 96

Members of the group discussed language that specifies that “the permittee shall obtain approval of the permit from the board prior to implementing changes described in the new application.” Members stated that the language may limit the ability of the agency’s flexibility to allow changes to be made prior to issuance of a permit. The goal of the language is to remind existing permittees that changes identified in the new permit application need to be approved by the agency before changes are made. A suggestion was made that the agency may want to consider placing this language in another section. Some individuals believe that the addition of this language is helpful to clarify that DEQ approval of a DEQ permit is needed. The agency will review this language and consider these comments.

Lunch Break 12:20-1:25

Public Forum

No one signed up for the public forum and a public forum was not held.

Review of 80% Drawdown Criteria

Robin Patton reviewed the 80% drawdown criteria with the GW RAP and explained the original application of the 80% drawdown criteria and how it has changed as a result of the guidance memo issued in 2005. When the 80% drawdown criteria were included in the regulations, the assumption was made that the ground water aquifers were of the same thicknesses and depths. As the agency as learned more about the characteristics of the confined aquifers in Virginia, it has been discovered that the aquifers are tilted or dipping toward the coastal plain and the thickness of the aquifers increases as you move from the fall line near Richmond toward the coastal regions. Slides were used to illustrate this concept.

Because the aquifers are not uniform throughout the Eastern Virginia Ground Water Management Area, this causes a challenge with application of the 80% drawdown criteria. If the 80% drawdown criteria is applied at a point halfway between the well and the one foot drawdown, there is the possibility that the withdrawal could pass the 80% drawdown criteria at the half distance but violate the 80% drawdown criteria at the 1 foot drawdown. Due to this problem, the agency issued guidance in 2005 that revised the application of the 80% drawdown criteria to include an evaluation of the 80% criteria throughout the area from the withdrawal point to the one foot drawdown.

Prior to the meeting GW RAP members were asked to be prepared to propose alternatives to using the 80% criteria to the group at this meeting. The agency asked the GW RAP to offer alternatives to utilizing the 80% criteria. The group identified and discussed the following ways that could be considered as alternatives to using the 80% drawdown criteria to protect the ground water resource:

- The drawdown criterion should be limited by the margin of error in the model.
- A standard distance above the top of the aquifer should be retained for protection against dewatering.
- Inclusion of a narrative description in each permit to protect the resource
- More than one point in evaluation
- Sustainability goal for each permit

The group discussed that some of the alternatives would allow for additional ground water withdrawal permits to be issued; but that the approaches would not address the issue of protecting the aquifer from being dewatered. The group discussed the use of monitoring wells in conjunctions with permits to verify ground water conditions within an area of impact. Some states have required all users to reduce their withdrawals by a specified percentage to address the issue of aquifers being overdrawn. Members of the GW RAP indicated that protecting the ground water resource is a challenge. Water conservation and alternative water supplies are issues that need to be addressed since future demands may not be able to be met through ground water resources. The Ground Water Act does not recognize that there are limits on the amount of ground water that can be withdrawn.

The group discussed the term “stabilized effects” in 110 D 3 h, and a member questioned why the stabilized effects are examined when the term of the permit is only 10 years, and the stabilized effects may take longer than 10 years to reach. The agency responded that if you do not consider the stabilized effect, then essentially, there will be more permits for withdrawals issued, which would impact the ability for existing users to continue to have permits reissued for continued use of ground water. As required by the regulations, the model used to evaluate ground water conditions is run on the stabilized effects of the withdrawals.

In conjunction with this discussion, the definition of human consumptive use was mentioned and it was suggested that the term industrial use should be removed from the definition.

At the end of the discussion, the agency discussed striking the last sentence of 110 D 3 h to make the regulatory text consistent with the 2005 guidance.

Section 103

The GW RAP was informed to strike section 106 from the draft language. Section 103 is a revision to section 106.

This section was created by examining the water supply planning and surface water programs to find a common process for examining future demand and alternatives. This section is an attempt to address these issues.

9 VAC 25-780 is the water supply planning regulation and is referenced throughout this section. The State Water Commission has stated that there needs to be more linkage between water use and water supply planning. Group members should send the agency their comments on this new section of the regulations.

In the next draft the agency plans to provide in this section, 9 VAC 25-610 B 2 f an amount of 185 gallons per residential connection as a basis for calculating demand.

Other issues

On page 20, line 32 (9VAC 25-610-140 A 5) the language that prevents the pump or intake device at a depth that would allow dewatering of any aquifer the well utilizes source is proposed for revision. Consider revising the language on page 16, line 30 (9VAC25-610-110 D 3 c) to be consistent with this language.

On page 21, line 28, there is the addition of language that addresses the prohibition of withdrawals from wells not authorized in the permit. The question was raised concerning the replacement of wells that fail that need to occur as a minor modification. The question was raised concerning how this replacement well would be handled and the permit requirements. This issue needs to be addressed in the minor modification section to make sure that there is no conflict between the two regulatory sections. The agency has identified that permittees have installed wells not included in the permit in the past and have had difficulty enforcing against these withdrawals.

Conclusion/ Wrap-up

The discussion on Aquifer Storage and Recharge did not take place at this meeting. One member indicated they would provide their thoughts on this topic to Melissa Porterfield. The group did not complete discussion of Part III of the draft regulations. In the future, members indicated that it would be helpful to see the entire text of the regulation since there are actions being proposed to be added to the regulations. When draft language is distributed, DEQ will indicate which sections will be discussed at meetings.

The next meeting is scheduled for Wednesday March 10, 2010 at the James City – Williamsburg Community Center.

The meeting adjourned at 3:40.